



Infrastructure Improvements Needed to Support Gas Pipeline Construction

Legislative Briefing - June 13, 2008

GAS PIPELINE CORRIDOR

Prudhoe Bay To Canadian Border

BASIC TRANSPORTATION ISSUES

- ▶ Gas pipeline will be different than TAPS
 - ✗ Buried construction, more earthwork truck loads
 - ✗ Heavier pipe (0.5" v. 1.25")
 - ✗ Greater use of large “modules”
 - ✗ More ports of entry
 - ✗ More air freight traffic
 - ✗ Higher background traffic
 - ✗ More pavement at risk
 - ✗ “Just in time” delivery approach likely



WHY NOW?

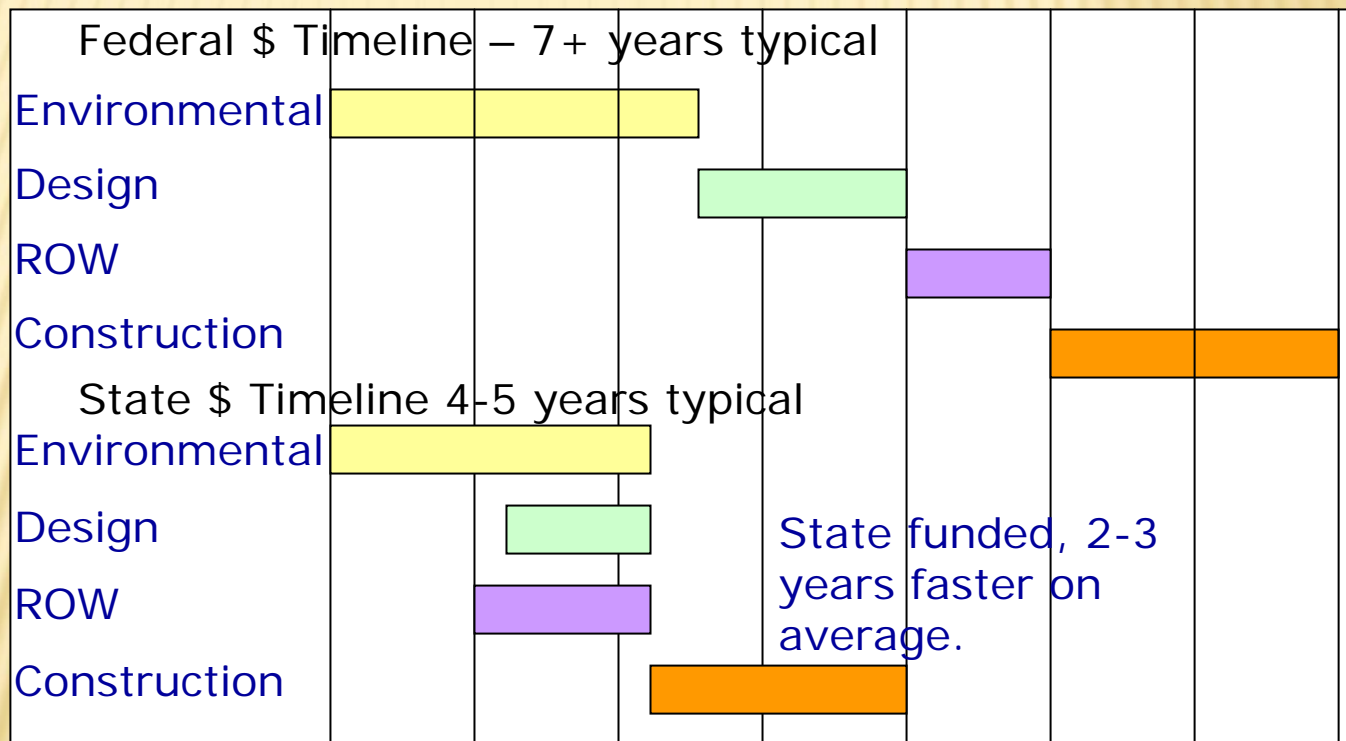
- ✘ Only 6 Construction Seasons (including FY09) Until Gasline Construction
- ✘ Too Much Work to be Compressed into a 2 to 3 Year Construction Window
- ✘ Bad Roads = Slower Gasline Construction and Increased Costs
- ✘ Bid Ready Projects Save Future Inflation as well as Maintenance Costs by Doing Projects Now

WHY NOW? CONTINUED

- ✘ Insufficient Federal Highway Funds and Timeline for Federal Projects
- ✘ Don't Want Roads Under Construction During Gasline Construction
- ✘ Projects will be Training Ground for Trades Needed for Gasline
- ✘ Reduce Accidents / Save Lives

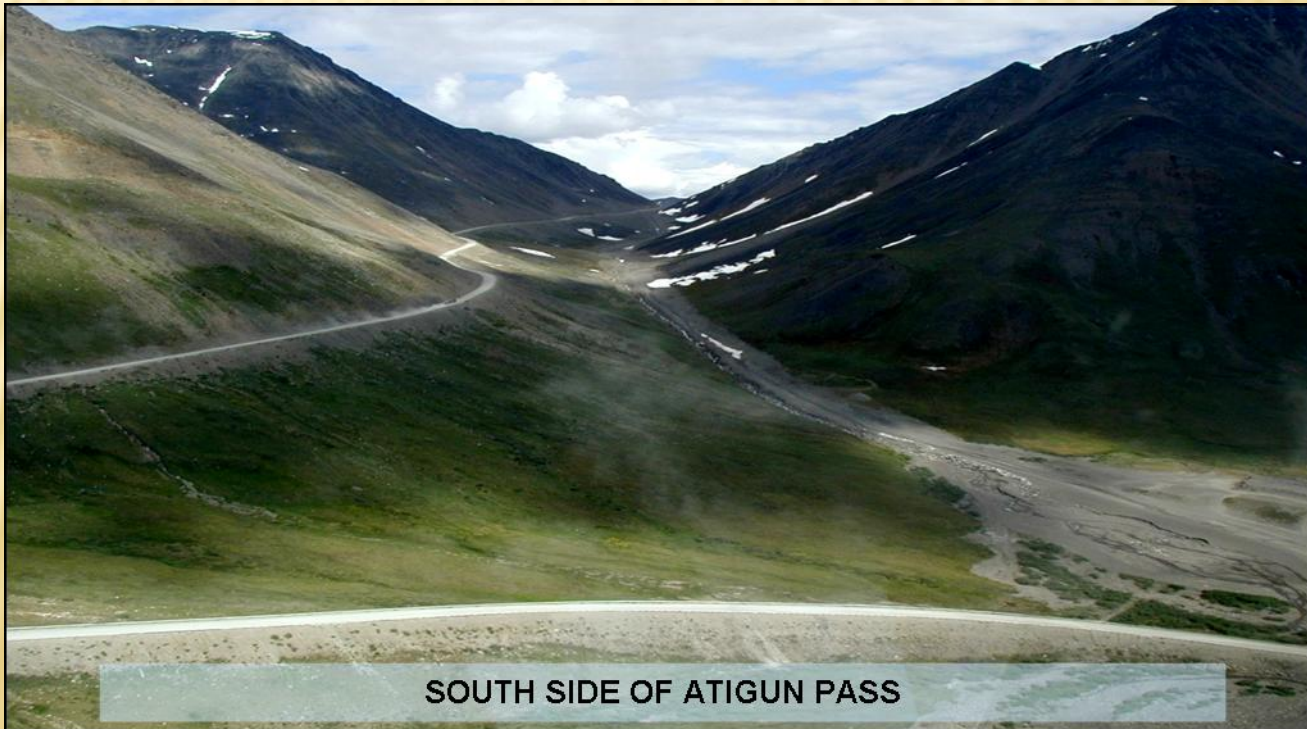
STATE FUNDS ADVANTAGES

Years



KEY CHOKEPOINTS

- ▶ Atigun Pass
- ▶ Yukon River Bridge
- ▶ Fairbanks, North Pole, Delta Junction
- ▶ Alaska Range and Thompson Pass
- ▶ Haines and Haines Highway
- ▶ Anchorage to Wasilla



SOUTH SIDE OF ATIGUN PASS

EXAMPLE OF LIMITING BRIDGE GERSTLE RIVER - ALASKA HIGHWAY



Multi-span, with height and width restrictions on module movements. Estimated Cost to Replace >\$50 M

GAS PIPELINE TRANSPORTATION CORRIDOR DESCRIPTION

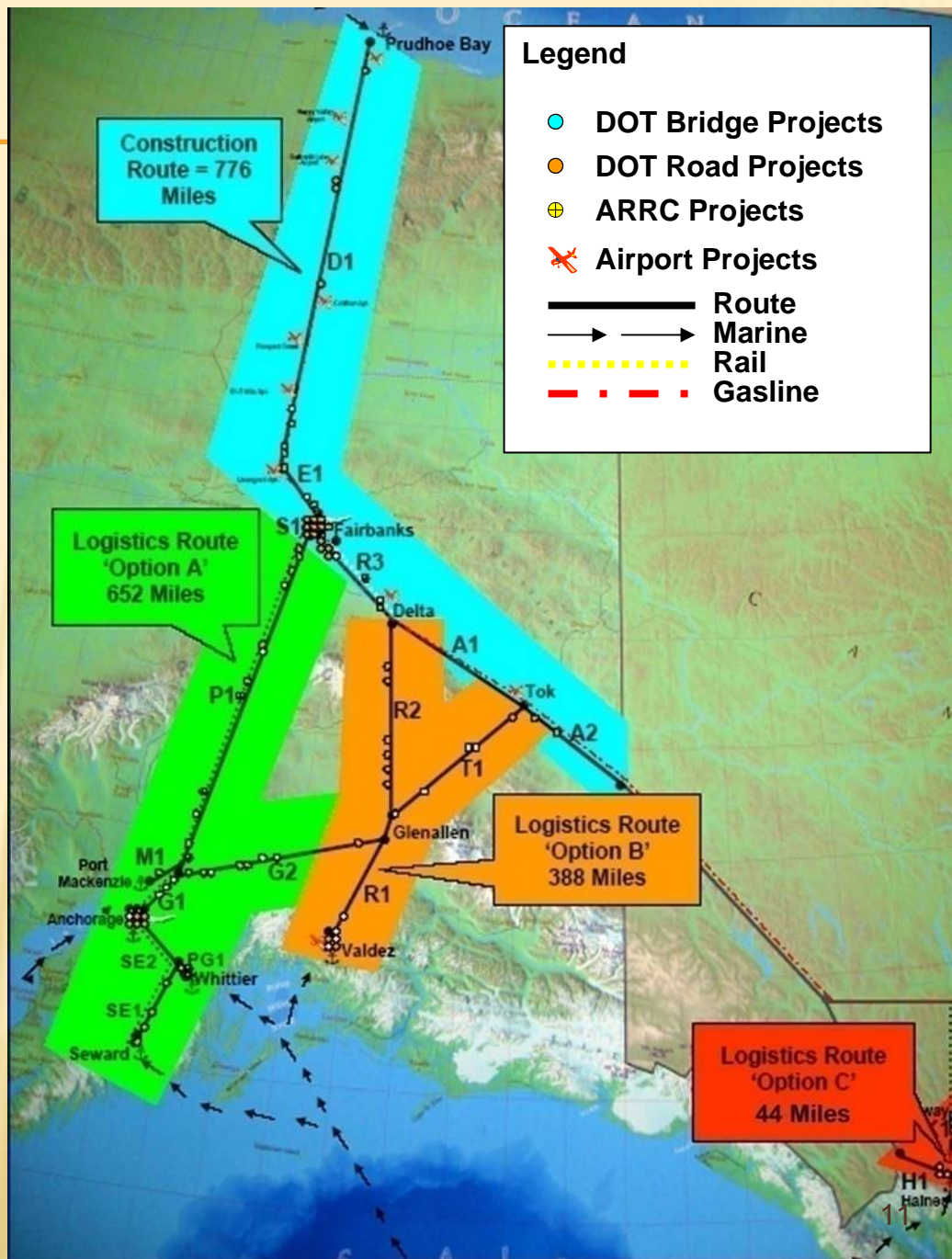
- ✘ Upgrade Bridges, Highways, Material Sites and Maintenance Camps
- ✘ Improve Safety and Drivability
 - Width
 - Alignment
 - Grades
 - Embankment
 - Surfacing Improvements
- ✘ Improve Maintainability



Transportation Corridors Identified for Ongoing Analysis

ROUTE KEY

ID	ROUTE	MP START	MP END
A1	Alaska	1422	1315
A2	Alaska	1314	1221
D1	Dalton Hwy	0	415
E1	Elliott	0	68
G1	Glenn Hwy	0	34
G2	Glenn Hwy	35	180
H1	Haines	0	44
K1	Klondike	0	66
M1	Pt. MacKenzie	0	10
P1	Parks Hwy	0	323
PG1	Portage Glacier	0	5
R1	Richardson Hwy	0	117
R2	Richardson Hwy	118	268
R3	Richardson Hwy	269	362
S1	Steese Hwy	0	11
SE1	Seward Hwy	0	78
SE2	Seward Hwy	79	125
T1	Tok Cutoff	0	121



GAS PIPELINE TRANSPORTATION CORRIDOR DESCRIPTION

- ✖ Part 1

 - + Dalton/Elliott Highways – Prudhoe Bay to Fairbanks

- ✖ Hub in Fairbanks

- ✖ Part 2

 - + Richardson Highway - Fairbanks to Delta

 - + Alaska Highway - Delta to Canadian Border

DALTON HWY CORRIDOR COST SUMMARY

- × Scope: 36 Projects Along 415-Mile Corridor
 - + 24 Highway projects
 - + 3 Airports
 - + 2 Bridges
 - + 7 Facilities
- × Schedule: July 2008 – December 2014
- × Cost: \$1.0 Billion – Average \$167 Million a Year for 6 Years
- × Initial Funding Request: \$100 Million GF

DALTON HWY CORRIDOR PROJECTS

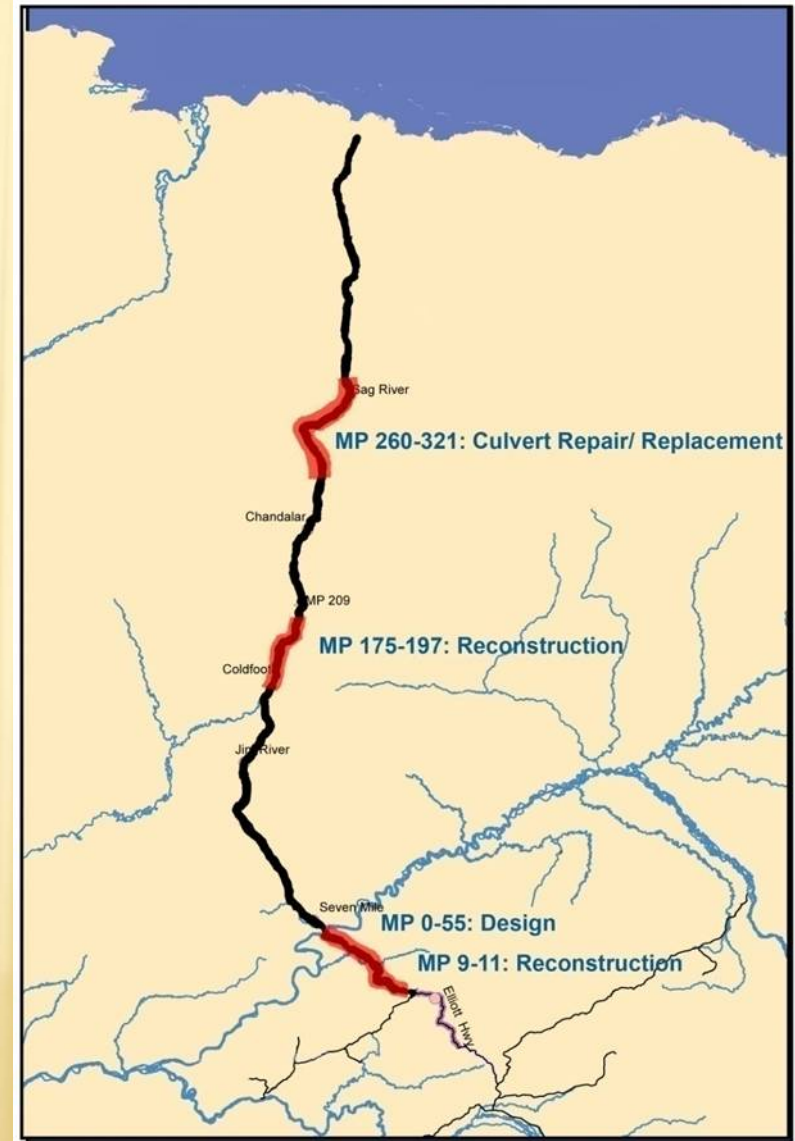
Initial \$100M Request

Construction \$75.5M

- Dalton MP 9-11: Reconstruction
- Dalton MP 175-197: Reconstruction Includes Bridge Replacement
- Dalton MP 260-321: Culvert Repairs, Replace with Bridge

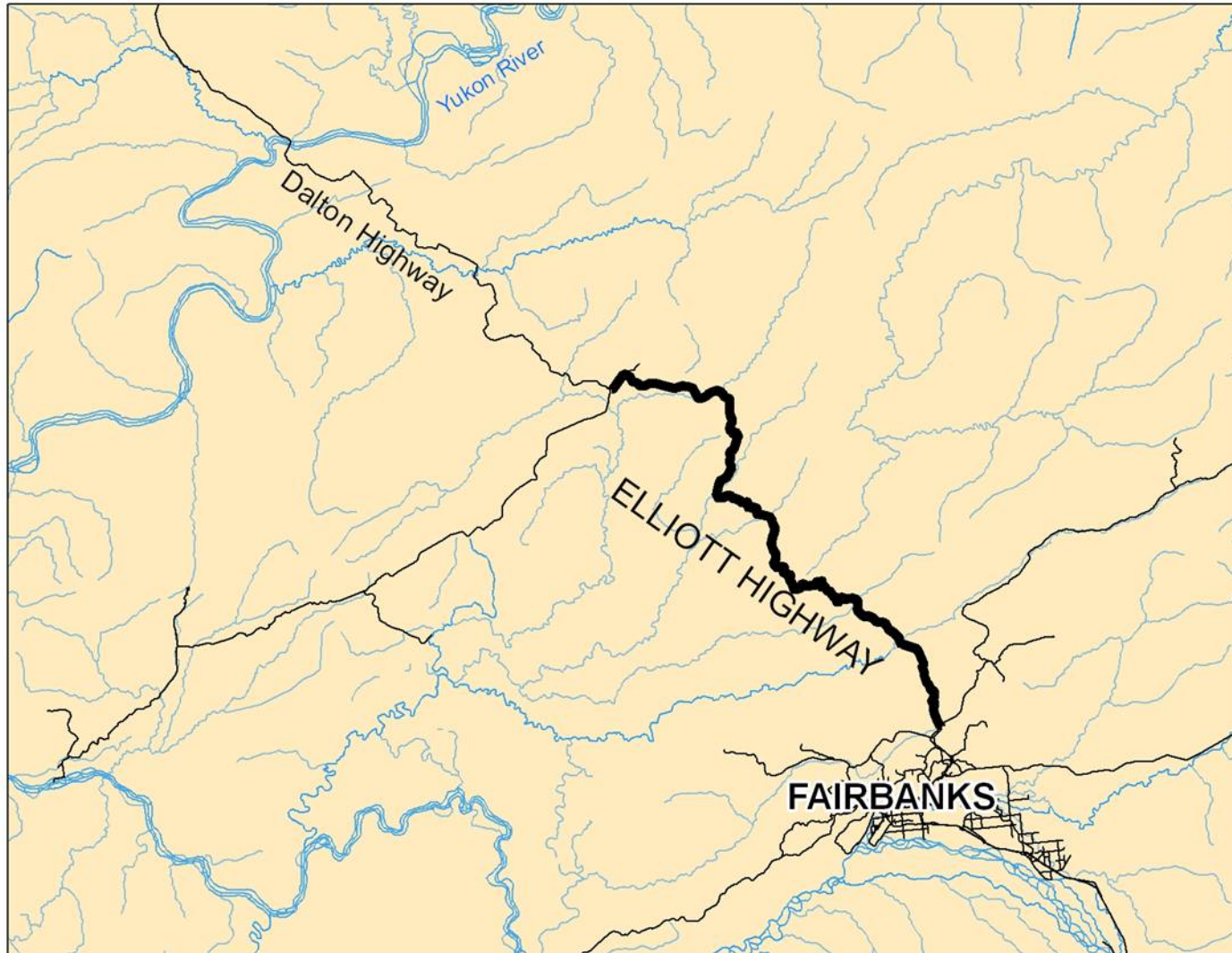
Design \$24.5M

- Dalton MP 0-55: 100% Design
- Material Site Study: Entire Corridor





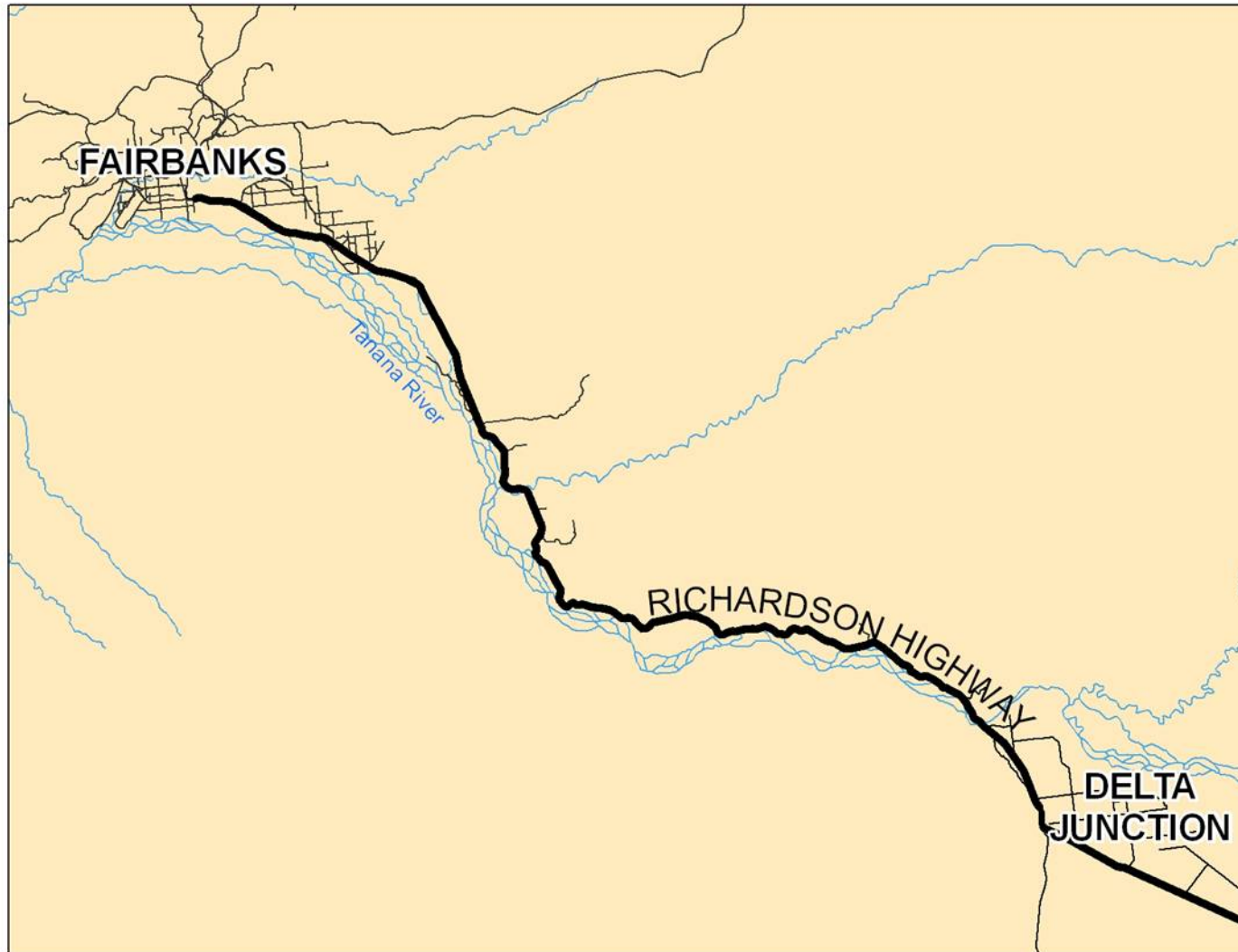
ELLIOTT HWY CORRIDOR



ELLIOTT HWY CORRIDOR COST SUMMARY

- × Scope: 6 Projects Along 73-Mile segment
 - + 3 Highway projects
 - + 1 Airport
 - + 1 Bridge
 - + 1 Facility
- × Schedule: June 2009 – December 2014
- × Cost: \$100 million

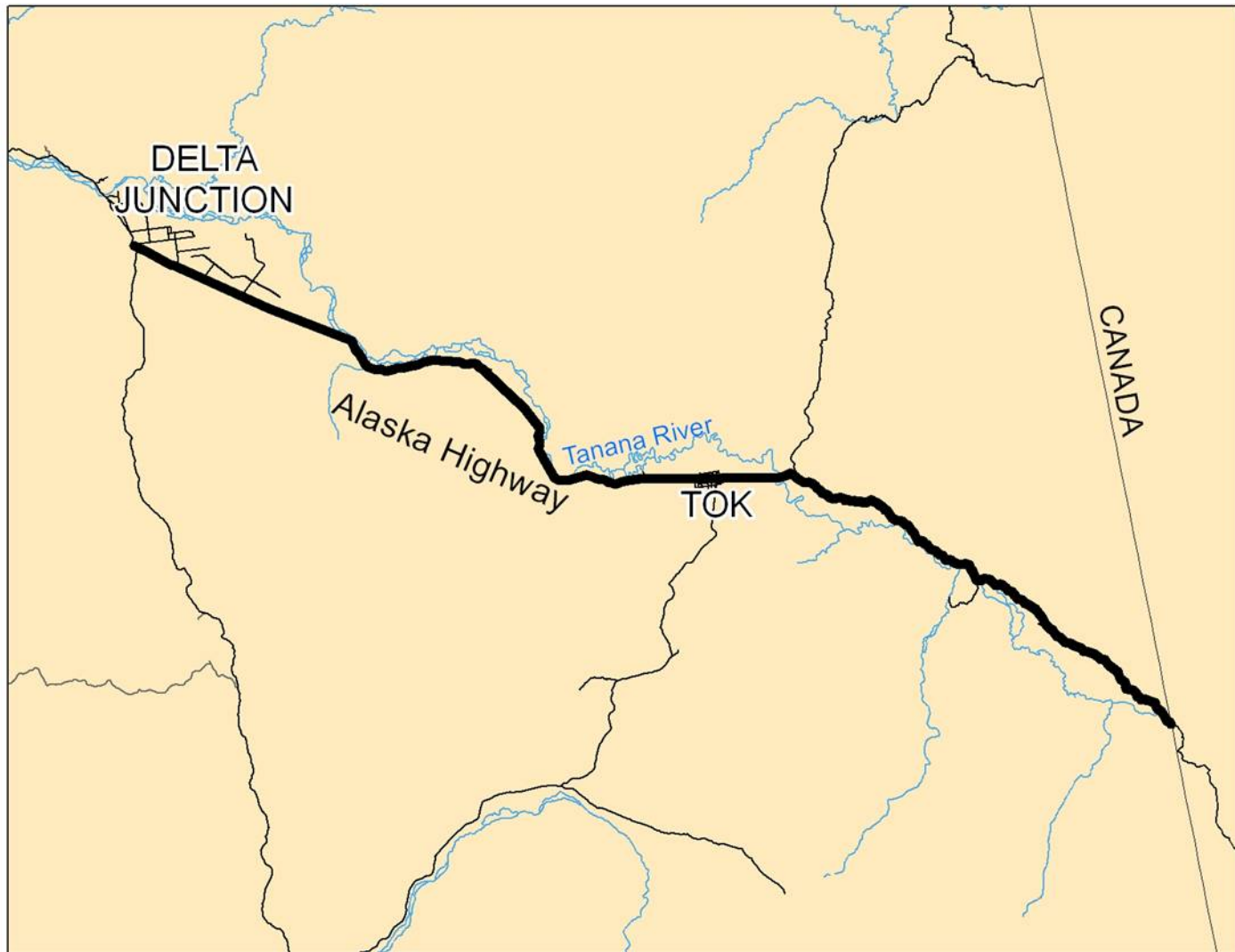
RICHARDSON HWY CORRIDOR



RICHARDSON HWY CORRIDOR COST SUMMARY

- × Scope: 21 Projects along 95-mile segment
 - + 15 Highway projects
 - + 2 Bridges
 - + 4 Facilities
- × Schedule: June 2009 – December 2014
- × Cost: \$300 million

ALASKA HWY CORRIDOR



ALASKA HWY CORRIDOR COST SUMMARY

- × Scope: 23 Projects along 200-mile segment
 - + 9 Highway projects
 - + 2 Airports
 - + 9 Bridges
 - + 3 Facilities
- × Schedule: June 2009 – December 2014
- × Cost: \$600 million

WHY START WITH DALTON HWY CORRIDOR

- ✖ Dalton Hwy is Alaska's major industrial highway
 - ✖ Construction Projects Will be Ready for Bid in Early 2009
 - ✖ Start Design on the Worst Sections, Proceed to Environmental with Goal of Bid Ready in 2010/2011 – Completing Construction in 2014
 - ✖ Material Sites are Depleted in This Corridor; New Sites Need to be Identified, Permitted and Developed

ISSUE OF FINANCIAL RESPONSIBILITY

► Who pays?

- + Some road work needed regardless
- + FERC ruled in 1980's pipeline traffic part of ordinary highway use (cannot penalize or treat pipeline differently)
- + Yet, the past tells us pavements will be obliterated!
- + Will FERC see it differently this time?

FINANCIAL RESPONSIBILITY (2)

- ▶ STIP funds 'tapped' out
 - + Funding levels decline in 2009
 - + New earmarks less likely
 - + Urban and other needs are great
 - + STIP \$\$ cannot be diverted to gas pipeline on wholesale basis
- ✕ Status of Shakwak Funds
 - + Will Yukon Roads/Bridges be able to handle construction loads and traffic

FINANCIAL RESPONSIBILITY (3)

- ▶ Financial responsibility issues to be discussed:
 - + Major activity site access such as turn lanes (camps, pipe staging yards)
- ▶ Weigh station bypass technology
 - + May improve state and carriers efficiencies
- ▶ Safety features needed
 - + Truck pull outs to allow passing
 - + Module movements safety pull out areas at bridges
 - + More passing lanes

DOT&PF PROGRESS TO DATE

- ✖ Full time coordinator in place
- ✖ Key work identified (bridges, passing lanes, highway reconstruction)
- ✖ Federal funded projects underway
- ✖ GO bond projects – November election
- ✖ Started Conversations with Prospective Builders

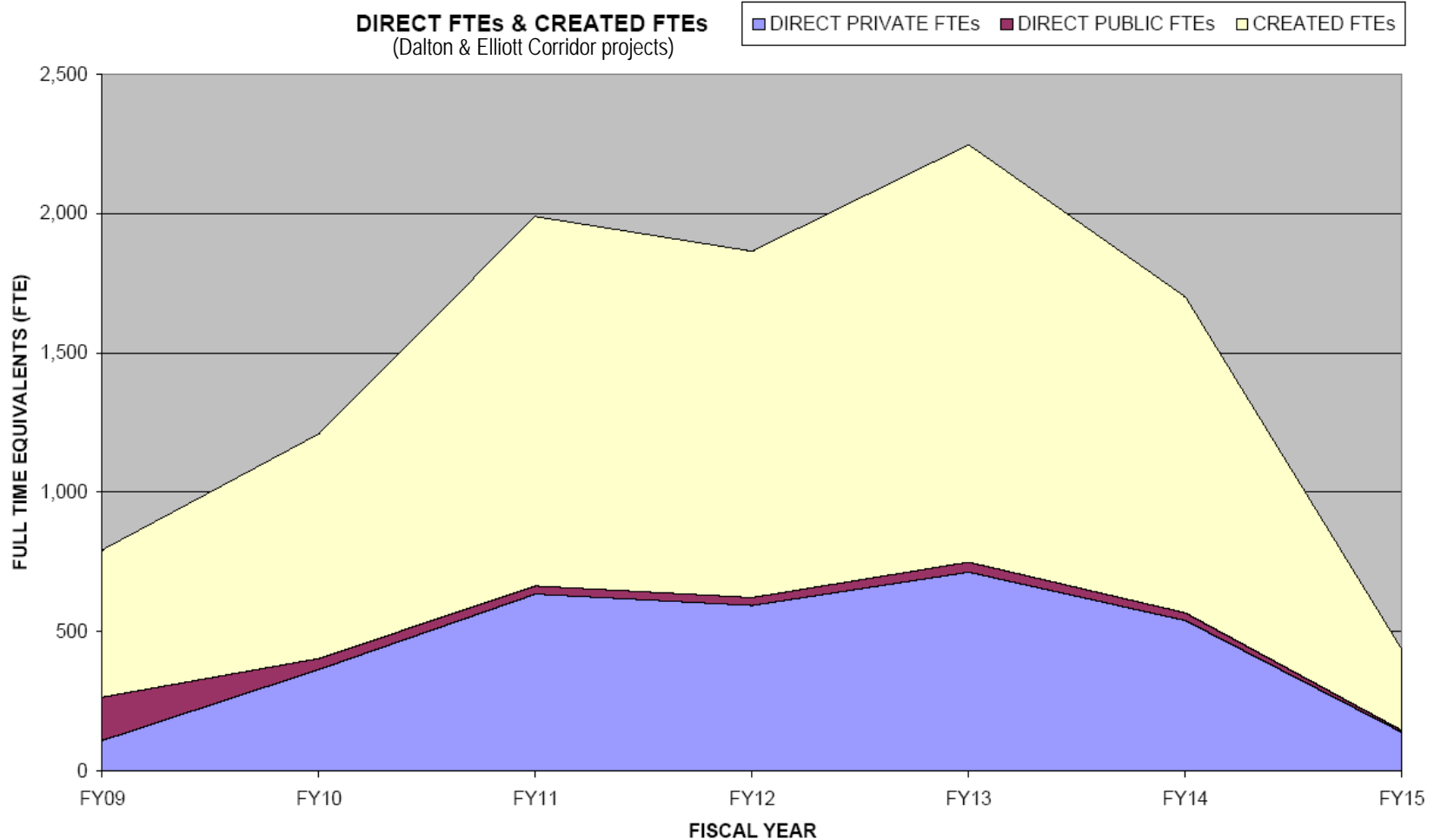
VISIBLE PROGRESS

2007 Elliott Highway: New Washington Creek Bridge and realignment



2007 Dalton Highway: Grade heightening at MP 241 to 242 to alleviate snow drifting, and aufeis.

NEW JOBS CREATED



FTE = Full Time Equivalent; 1.0 FTE = 1 full-time worker

NEXT STEPS

- ✘ Begin work on Dalton Highway - \$100M
- ✘ Evaluate Needs for FY10 Budget
- ✘ Create State Gasline Permit Office
 - Streamline State Permit Process
 - Increase Federal Permitting Efficiencies
- ✘ Establish Apprenticeship Programs
- ✘ Establish MOU w/ Canadian Counterparts

OTHER ISSUES

- ▶ Size and weight issues
- ▶ Extra maintenance and operations support during construction
- ▶ Safety and law enforcement
- ▶ Aviation needs
- ▶ ROW for TC Alaska
- ▶ ROW for Bullet Line
 - ▶ Denali Park and ANILCA
- ▶ Construction Impact on Tourism



QUESTIONS

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